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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/717,284	11/19/2003	Robert C. Taft	08211/0200252-US0	7398
38845	7590	06/23/2005	EXAMINER	
DARBY & DARBY P.C. P.O. BOX 5257 NEW YORK, NY 10150-5257			NGUYEN, HIEP	
			ART UNIT	PAPER NUMBER

2816

DATE MAILED: 06/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/717,284

Applicant(s)

TAFT ET AL.

Examiner

Hiep Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 03 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 22,23 and 25-37 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 23 is/are allowed.
- 6) ☒ Claim(s) 22 and 25-33 is/are rejected.
- 7) ☒ Claim(s) 34-37 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

The finality of the rejection has been withdrawn.

#### *Claim Rejections - 35 USC § 112*

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 22, 25, 26 and 28-32 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Correction and/or clarification is required.

Regarding claim 22, the recitation “an on condition” on lines 7 and 10 is indefinite because it is not clear which component is in “an on condition”. The same rationale is applied to the recitation “an on condition” in claims 23, 25, 26, 28,

Claims 29-32 are indefinite because of the technical deficiencies of claim 28.

#### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 22, 26, 27 and 33 are rejected under 35 U.S.C. 102 (b) as being anticipated by Singer et al. (US Pat. 6,118,326).

Regarding claims 22, 26, 27 and 33, figure 7 of Singer shows a transmission gate comprising a switch circuit (M1), a boost circuit (30, S1, Cboot, S2) in response to a supply voltage (V++) (col. 12 lines 31-51), a current source circuit (S4), a constant voltage difference circuit (40). The voltage at node N3 is supplied to the gate of switch (M1) is equal to  $V_i + V_{++} - V_{--}$ . Note that  $V_{--}$  is equivalent to the ground level, thus the gate voltage is  $V_i + V_{++}$ . The difference between that gate voltage and the input voltage  $V_{in}$  is  $V_{++}$ , Thus the gate-source voltage is constant, independent of the input voltage  $V_{in}$ . Circuit (40) comprises transistors. The control input applied to the gate of switch is  $V_{in} + V_{--}$ . Therefore, the control

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input tracks the input voltage. The on-resistance of the switch is always constant with temperature (col. 12, lines 45-47).

***Allowable Subject Matter***

Claims 34-37 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 25 and 28-32 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

Claims 34-37 are objected to because the prior art (US Pat. 6,118,326) fail to teach or suggest a second switch circuit coupled to the input node and to the output node as called for in claims 34 and 35.

Claim 25 would be allowable because the prior art (US Pat. 6,118,326) fail to teach or suggest transmission gate comprising a charge pump and a current source comprising a current mirror.

Claims 28-32 would be allowable because the prior art (US Pat. 6,118,326) fail to teach or suggest transmission gate comprising a first transistor arranged in a diode configuration and coupled between the control input node and another node; and a second transistor including a gate that is coupled to the input node, a source that is coupled to the other node as called for in claim 28.

Claim 23 is allowed because the prior art (US Pat. 6,118,326) fail to teach or suggest transmission gate comprising a constant voltage difference circuit including a plurality of transistors, and wherein constant voltage difference is substantially equal to the sum of the gate-to-source voltages of each of the plurality of transistors.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hiep Nguyen whose telephone number is (571) 272-1752. The examiner can normally be reached on Monday to Friday from 7:30am to 4:00pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Callahan can be reached on (571) 272-1740. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hiep Nguyen

06-17-05



TUANT.LAM  
PRIMARY EXAMINER